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Revision 0

# **Calendar Year 2005 Hanford Site Mixed Waste Land Disposal Restrictions Summary Report**

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Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management



**United States  
Department of Energy**  
P.O. Box 550  
Richland, Washington 99352

**Approved for Public Release;  
Further Dissemination Unlimited**

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Richland, Washington 99352

*J. D. Arslan* 4/4/2006  
Release Approval Date

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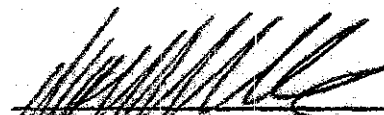
## PRIMARY DOCUMENT STATEMENT

### CALENDAR YEAR 2005 HANFORD SITE MIXED WASTE LAND DISPOSAL RESTRICTIONS SUMMARY REPORT


Approval of the U.S. Department of Energy's annual land disposal restriction report as a *Hanford Federal Facility Agreement and Consent Order* primary document shall be by written approval of U.S. Department of Energy and Washington State Department of Ecology Interagency Management Integration Team representatives.

This document has been prepared, submitted, revised, and approved as a primary document in response to the requirements of the *Hanford Federal Facility Agreement and Consent Order* milestone series M-26-01 and related *Resource Conservation and Recovery Act of 1976* land disposal restrictions and *Hanford Federal Facility Agreement and Consent Order* requirements. As such, this document serves as a binding and enforceable document under the *Hanford Federal Facility Agreement and Consent Order*.

Approved and issued this \_\_\_\_\_ day of \_\_\_\_\_ 2006.

  
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## ACRONYMS

ALARA	As Low As Reasonably Achievable
BDAT	best demonstrated available technology
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CFR	Code of Federal Regulations
CH	contact handled
CH2M HILL	CH2M HILL Hanford Group, Inc.
CWC	Central Waste Complex
CY	calendar year
D&D	decontamination and decommissioning
DOE	U.S. Department of Energy
DOE-ORP	U.S. Department of Energy, Office of River Protection
DOE-RL	U.S. Department of Energy, Richland Operations Office
DST	double-shell tank
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ERDF	Environmental Restoration Disposal Facility
ETF	200 Area Effluent Treatment Facility
FH	Fluor Hanford
FY	fiscal year
HEPA	high-efficiency particulate air (filter)
HLV	high-level vault
HLW	high-level waste
HSTF	Hexone Storage and Treatment Facility
HWTU	Hazardous Waste Treatment Unit
IMUST	inactive miscellaneous underground storage tank
LDR	land disposal restrictions
LERF	Liquid Effluent Retention Facility
LLBG	Low-Level Burial Grounds
MLLW	mixed low-level waste
MW	mixed waste
NA or N/A	not applicable
O/C	organic/carbonaceous
ORP	Office of River Protection
OU	operable unit
PCB	polychlorinated biphenyl
PFP	Plutonium Finishing Plant

PMW	potential mixed waste
PMWT	potential mixed waste table
PNNL	Pacific Northwest National Laboratory
PSTF	Purgewater Storage and Treatment Facility
PUREX	plutonium-uranium extraction (process)
RADTU	Radioactive Acid Digestion Test Unit
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
REC	radiochemical engineering cell
REDOX	reduction-oxidation (process)
RH	remote handled
RLWS	Radioactive Liquid Waste System
ROD	record of decision
S&M	surveillance & maintenance
SNF	Spent Nuclear Fuel
SNM	Special Nuclear Material
SST	single-shell tank
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order (TPA)</i>
TRU	transuranic (waste)
TRUM	transuranic mixed (waste)
TRUSAF	224-T Transuranic Waste Storage and Assay Facility
TSCA	<i>Toxic Substances Control Act of 1976</i>
TSD	treatment, storage, and/or disposal
WAC	<i>Washington Administrative Code</i>
WESF	Waste Encapsulation and Storage Facility
WHF	waste handling facility
WIDS	Waste Information Data System
WIPP	Waste Isolation Pilot Plant
WRAP	Waste Receiving and Processing Facility
WSCF	Waste Sampling and Characterization Facility
WSRd	waste specification record
WTP	Waste Treatment Plant



## METRIC CONVERSION CHART

Into metric units

Out of metric units

If you know	Multiply by	To get	If you know	Multiply by	To get
<b>Length</b>			<b>Length</b>		
inches	25.40	millimeters	millimeters	0.03937	inches
inches	2.54	centimeters	centimeters	0.393701	inches
feet	0.3048	meters	meters	3.28084	feet
yards	0.9144	meters	meters	1.0936	yards
miles (statute)	1.60934	kilometers	kilometers	0.62137	miles (statute)
<b>Area</b>			<b>Area</b>		
square inches	6.4516	square centimeters	square centimeters	0.155	square inches
square feet	0.09290304	square meters	square meters	10.7639	square feet
square yards	0.8361274	square meters	square meters	1.19599	square yards
square miles	2.59	square kilometers	square kilometers	0.386102	square miles
acres	0.404687	hectares	hectares	2.47104	acres
<b>Mass (weight)</b>			<b>Mass (weight)</b>		
ounces (avoir)	28.34952	grams	grams	0.035274	ounces (avoir)
pounds	0.45359237	kilograms	kilograms	2.204623	pounds (avoir)
tons (short)	0.9071847	tons (metric)	tons (metric)	1.1023	tons (short)
<b>Volume</b>			<b>Volume</b>		
ounces (U.S., liquid)	29.57353	milliliters	milliliters	0.033814	ounces (U.S., liquid)
quarts (U.S., liquid)	0.9463529	liters	liters	1.0567	quarts (U.S., liquid)
gallons (U.S., liquid)	3.7854	liters	liters	0.26417	gallons (U.S., liquid)
cubic feet	0.02831685	cubic meters	cubic meters	35.3147	cubic feet
cubic yards	0.7645549	cubic meters	cubic meters	1.308	cubic yards
<b>Temperature</b>			<b>Temperature</b>		
Fahrenheit	subtract 32 then multiply by 5/9ths	Celsius	Celsius	multiply by 9/5ths, then add 32	Fahrenheit
<b>Energy</b>			<b>Energy</b>		
kilowatt hour	3,412	British thermal unit	British thermal unit	0.000293	kilowatt hour
kilowatt	0.94782	British thermal unit per second	British thermal unit per second	1.055	kilowatt
<b>Force/Pressure</b>			<b>Force/Pressure</b>		
pounds (force) per square inch	6.894757	kilopascals	kilopascals	0.14504	pounds per square inch

06/2001

Source: *Engineering Unit Conversions*, M. R. Lindeburg, PE., Third Ed., 1993, Professional Publications, Inc., Belmont, California.

## CALENDAR YEAR 2005 HANFORD SITE MIXED WASTE LAND DISPOSAL RESTRICTIONS SUMMARY REPORT

### 1.0 INTRODUCTION

The information in the *Calendar Year 2005 Hanford Site Mixed Waste Land Disposal Restrictions Summary Report* (CY 2005 LDR Summary Report) is prepared in accordance with *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 2003a) Milestone M-26-01P. The CY 2005 LDR Summary Report reports on the status of Hanford Site land disposal restricted mixed waste, other mixed waste, and other waste the U.S. Department of Energy (DOE), Washington State Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA) have agreed to include in this report. The reporting period for this document is from January 1, 2005, to December 31, 2005.

The content and format for the CY 2005 LDR Summary Report was established in Tri-Party Agreement change request M-26-05-01 as a pilot activity for the CY 2005 reporting period. The following text has been reproduced from the change request for meeting Milestone M-26-01P:

“Submit an annual Hanford Land Disposal Restrictions Summary Report as a pilot project in accordance with the agreement requirements to cover the period from 1/1/2005 through 12/31/2005. The Hanford Land Disposal Restrictions Summary Report will contain the following elements taken from the Calendar Year 2004 Hanford Site Mixed Waste Land Disposal Restriction Report (DOE/RL-2005-23):

- Section 2.1: Summary inventory of waste treatment groups and forecast generation rates
- Section 3.0: Compliance assessments of mixed waste and potential mixed waste
- Section 3.1: Introduction
- Section 3.2: Assessment schedules
- Appendix C: Potential mixed waste
- Table 2-1: Stored volumes of mixed waste and generation projections
- Table 2-2: Treatability group summary of storage, characterization, and treatment activities
- Table 3-1: Summary of DOE-RL assessment results
- Table 3-2: DOE-RL assessments for Calendar Years 2005 through 2007 (updated for next three years)
- Table 3-3: Summary of DOE-ORP assessment results
- Table 3-4: DOE-ORP assessments for Calendar Years 2005 through 2007 (updated for next three years)
- Table 13-1: Summary of characterization information for each treatability group
- Table 14-1: Summary of treatment information for each treatability group.

In addition, the summary report will include a table containing the storage volume and the number of containers reported for the following Hanford site locations: CWC, LLBG, WRAP, PFP, T Plant Complex, WSCF, 325 HWTU, 324, 327, 200 ETF, and 222-S.

Following Ecology approval of the Hanford Land Disposal Restrictions Summary Report, Ecology and DOE will decide if and to what degree a summary report can be used to satisfy future annual land disposal restriction reporting requirements. If an agreement is reached on continued use of the summary report, a change request will be processed to implement any agreed upon changes.”

## 1.1 CY 2005 LDR SUMMARY REPORT OVERVIEW

This report presents waste stream information provided in accordance with Section 6.1 of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Action Plan and supporting milestones and documentation. The waste streams reported under the Tri-Party Agreement include those described in the requirements of the *Federal Facility Compliance Act of 1992* for U.S. Department of Energy sites that prepare a Site Treatment Plan along with other waste streams required under Tri-Party Agreement documentation. Although the Hanford Site is exempt from the requirements to prepare a Site Treatment Plan, the LDR Summary Report is considered equivalent to a Site Treatment Plan. The *Federal Facility Compliance Act of 1992* was enacted, in part, to address the inability of some mixed waste to meet requirements of the storage prohibition in Title 40 *Code of Federal Regulations* (CFR) Part 268.50. *Washington Administrative Code* (WAC) 173-303-140, incorporates the federal storage prohibition by reference. EPA guidance (EPA 1990) indicates which mixed waste is subject to the storage prohibition.

Mixed waste is not subject to the storage prohibition until generated and managed in a 90-day accumulation area or a treatment, storage, and/or disposal (TSD) unit, or the waste is managed at a Hanford Site location managing mixed waste pursuant to the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) of 1980 offsite rule (40 CFR 300.440). Although mixed waste managed in a 90-day accumulation area is not considered stored, the EPA has indicated that the storage prohibition clock begins when mixed waste is managed in the 90-day accumulation area. Mixed waste is reported here as projected waste when the waste meets either of the following criteria.

- The waste has not been generated and therefore is not subject to the storage prohibition.
- The waste is managed in either a satellite accumulation area, a 90-day accumulation area, or is CERCLA mixed waste destined for treatment at the Environmental Restoration Disposal Facility (ERDF).

The CY 2005 LDR Summary Report provides aggregate waste stream data based on a set of waste treatability groups and also provides selected data on location-specific sources of waste as stated in the M-026-01P Milestone description. The waste from location-specific sources is included in the appropriate treatability groups. Per agreement with Ecology on February 6, 2003, mixed waste generated and sent directly to disposal does not need to be reported in the LDR report (Ecology et al. 2003b). If any storage of the mixed waste occurs, the mixed waste must be reported. Mixed waste currently in satellite accumulation areas or in 90-day accumulation areas is not considered current stored inventory, but is included as forecast waste generation.

Other materials, items, etc., currently on the Hanford Site that might be designated as mixed waste in the future, are described in Section 1.3, and are identified as potential mixed waste.

## 1.2 SUMMARY INVENTORY OF WASTE TREATMENT GROUPS AND FORECAST GENERATION RATES

The volume of mixed waste currently in storage and the volume projected to be generated and subsequently stored at Hanford during the next 5 calendar years are presented in Table 1-1. Mixed waste managed only in Hanford Site generator locations (satellite accumulation areas and 90-day accumulation areas), and then sent directly offsite for treatment is not reported. Table 1-2 presents an overall summary of the storage, characterization, treatment, and disposal activities for the treatability groups. Table 1-2 is a collection of information from the following three tables: Table 1-1; Table 3-1; and Table 4-1. Data on waste volumes in these tables are rounded to two significant figures. Stored waste volumes are reported

either by the actual waste volume or by the waste container volume. In general, stored waste volumes are reported by actual waste volume unless the data is obtained from the solid waste information tracking system.

The Waste Treatment Plant (WTP) is a new TSD unit being constructed to treat double-shell tank (DST) waste and single-shell tank (SST) waste. The WTP Project Management schedule projects that mixed waste will not be generated at the Waste Treatment Plant until after CY 2010, outside of the five-year forecasting window for this report. As agreed with Ecology at the January 17, 2006, LDR Project Manager Meeting, location-specific data sheets and/or treatability group data sheets for the Waste Treatment Plant will not be prepared for the CY 2005 LDR Report (Ecology et al. 2006).

### 1.3 POTENTIAL MIXED WASTE

The potential mixed waste table (PMWT) (Tables 1-3 through 1-5) includes materials that have not been generated as mixed waste and waste that has not been actively managed as mixed waste. The materials included are those that reasonably could be expected to be generated as mixed waste at some future time. The materials included in the PMWT (equipment, piping, etc.) are those that currently are not being used and do not have a clear path for reuse or recycling. The waste that has not been actively managed as mixed waste is, in many cases, at *Resource Conservation and Recovery Act* (RCRA) of 1976 or CERCLA past-practice units under the Tri-Party Agreement. Past-practice waste is waste that was abandoned before the first effective LDR date in Washington State, August 19, 1987. Classification of waste management units as RCRA or CERCLA past-practice units is described in Section 3.0 of the Tri-Party Agreement Action Plan. When cleanup actions occur in the operable unit for these past-practice units, mixed waste could, or is expected to be generated. The PMWT also includes a similar category of materials currently in standby for a potential future use. The table was developed for the following reasons:

- To acknowledge that materials might become mixed waste at a future date
- To begin identifying data gaps (e.g., whether the material would be designated as mixed waste) and facilitate discussions to establish a path forward toward disposition for those materials eventually identified as mixed waste.

As a result of discussions with Ecology and EPA, the following categories of materials have not been included in the PMWT.

- Generated mixed waste. This mixed waste is included in treatability groups and location-specific waste streams.
- Contaminated soil sites, cribs, ponds, ditches, trenches, etc., considered engineered disposal units. [However, the materials would be included in a LDR report location-specific waste streams when management or disposition activities associated with those units are expected to result in the generation of mixed waste requiring treatment in the next 5 years.]
- The building structures themselves, including contaminated walls, floors, floor sweepings, dust, etc. Building equipment, such as ventilation system components and building utilities that would be considered part of the structure, also is not included.
- Equipment and chemicals being used.

The PMWT includes information on the assessments performed or scheduled to meet the DOE assessment requirement of the LDR storage report. Section 2.0 provides more information concerning assessments.

The PMWT also includes known and proposed schedule information. This information can include the following, as applicable:

- Proposed dates for assessments
- Operable units that encompass the facility or unit
- Existing documentation and milestones or schedules that indicate plans that will address the potential mixed waste (PMW)
- Date to complete data gap plan
- Start date for major negotiations such as facility transition or deactivation.

Table 1-1. Stored Volumes of Mixed Waste and Generation Projections.

Treatability Group Name	Description <sup>1</sup>	Current Inventory (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2006 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2007 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2008 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2009 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2010 (m <sup>3</sup> ) <sup>2</sup>
221-T Containment Building	Equipment (e.g., jumpers, tanks, centrifuges, etc.), other debris (e.g., pieces of concrete, etc.), and nondebris (e.g., sandblasting grit) generated during canyon deck and/or process cell cleanout, or from treatment and/or decontamination activities.	58	0	0	0	0	0
221-T Tank System	Liquid mixed waste with settled solids/sludge (waste also contains PCBs at TSCA regulated concentrations)	12	0	0	0	0	0
222-S Laboratory Complex	This waste stream consists of many different inorganic and organic solids and liquids that are RCRA regulated or have been contaminated with inorganic and organic regulated dangerous waste constituents, including PCBs. This waste stream also includes hazardous debris.	8.7	11	11	11	11	11
222-S T8 Tunnel	Debris that has contacted waste from the 219-S WHF tank system. The debris is designated as RH MLLW as a result of this contact.	0.20	0	0	0	0	0
241-CX Tank System	Residual tank waste resulting from REDOX, PUREX, and Semiworks processes.	3.0	0	0	0	0	0
324 Bldg. REC Waste	Radioactive waste containing regulated quantities of toxic heavy metals. Mixed waste residue will be generated from the future REC decontamination and deactivation activities.	5.0	0	5.0	5.0	0	0
325 HWTU	This waste stream consists of many different inorganic and organic solids and liquids contaminated with inorganic and organic regulated dangerous waste constituents, including PCBs. This waste stream also includes hazardous debris. WSRds in this waste stream: PNNL-930-05 and PNNL-931-04.	8.3	4	4	4	4	4
B Plant Cell 4	Waste resulted from WESF hot cell maintenance waste (i.e., manipulator boots, light bulbs, HEPA filters, misc. debris). No additional waste will be stored in this location as the B Plant Complex is under long-term S&M.	1.4	0	0	0	0	0
B Plant Containment Building	Stream consists of failed equipment (e.g., process jumpers, pumps, etc.) used in the 221-B canyon. Contaminated debris/equipment derived from the processing of "F" listed wastes for the recovery of strontium and cesium. Also contains elemental lead used for counterbalances and shielding. No additional waste will be stored at this location. The B Plant Complex is under long-term S&M.	290,000 kg	0	0	0	0	0
Cesium and Strontium Capsules	Cesium and strontium were reclaimed from Tank Farm waste as a product, separated and purified at B Plant, and converted to dry salt for storage at WESF. The cesium and strontium capsules were declared waste in 1997 with the application for a Part A, Form 3, permit application. The subject waste consists of 1,335 cesium capsules and 601 strontium capsules. The capsules are stored in pool cells at WESF.	2.0	0	0	0	0	0
DST Waste	Basic aqueous solution that might contain suspended material and/or settled solids (sludge and saltcake). Waste streams are treated with sodium hydroxide and sodium nitrite to minimize tank corrosion and to address compatibility issues. Waste has been stored in the DST System from 1970 to the present.	98,000	38	38	38	38	38
ERDF—Treatment	Mixed waste that requires treatment prior to disposal at ERDF. The waste is stored at the operable unit, and is shipped to ERDF where waste treatment and/or disposal occurs.	83	13,000	13,000	13,000	13,000	13,000
HSTF	Residual heel content remaining from REDOX Process.	2.1	0	0	0	0	0

Table 1-1. Stored Volumes of Mixed Waste and Generation Projections.

Treatability Group Name	Description <sup>1</sup>	Current Inventory (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2006 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2007 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2008 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2009 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2010 (m <sup>3</sup> ) <sup>2</sup>
LERF/ETF Liquid Waste	CERCLA and RCRA aqueous wastewaters are sent to the LERF/ETF for treatment and disposal.	37,000	84,000	84,000	84,000	82,000	4,400
MLLW-01 - LDR Compliant Waste	WSRds: BLS, EH3, EHM, EHR, EHB, EHD, H3L, EHS, 903, 930, 931. Waste with WSRd BLS consists of soils (dirt, sand, gravel, rocks, etc.) excavated from the various waste tank farms. The waste was incidentally contaminated with tank waste; therefore, the waste is designated with F001 through F005 based on the "contained-in" policy. The waste is typically packaged in drums and boxes. Remaining WSRds include waste that consists of soils (dirt, sand, gravel, rocks, etc.), treated debris, other particulates, and solidified liquids. All waste forms are anticipated to contain LDR compliant levels of dangerous waste constituents. Subject waste also includes the currently stored inventory of LDR compliant wastes and the forecast LDR compliant waste that comes directly from the generator (e.g., debris waste items, deactivated waste, stabilized waste, and waste meeting LDRs as generated).	210	15	13	45	52	24
MLLW-02 - Inorganic Non-Debris	This treatability group is for non-debris waste that contains hazardous constituents that either requires non-thermal treatment (specified technology) or non-thermal treatment is BDAT for meeting the applicable LDR treatment standards (concentration-based standards). The applicable WSRds for this treatability group are: ALI, EH4, EHP, H3C, H3G, H3M, H3S, IXI, LPI, PAI, SSA, 420, 421, 422, 425, 426, 428, 506, 507, 521, 523, 524, 525, 900, 901, 902, 904. This waste consists of many different inorganic solids (e.g., particulates, absorbed liquids, sludges, resin beads, soils) and labpacks that are contaminated with regulated metals and other inorganics. This waste treatability group does not include hazardous debris other than incidental debris material commingled with the non-debris. Mixed waste generated from closure of the 183-H Solar Evaporation Basins is planned for treatment at ERDF. The volume of waste that will be treated at ERDF is included in storage inventory being reported for CWC under treatability group MLLW-02.	280	11	4.3	4.7	2.4	2.1
MLLW-03 - Organic Non-Debris	This treatability group is for non-debris waste that contains hazardous constituents that either requires thermal treatment (specified technology) or thermal treatment is BDAT for meeting the applicable LDR treatment standards (concentration-based standards). Stabilization of the thermal treatment residue may also be required. The applicable WSRds for this treatability group are: ALO, IDW, IXO, LPA, LPO, PAO, SOC, SOE, SOW, TFS, TSC, 300, 301, 302, 303, 304, 305, 310, 311, 315, 320, 321, 330, 331, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 40A, 40B, 427, 429, 430, 431, 432, 43A, 43C, 45A, 46A, 47A, 500, 501, 502, 503, 504, 505, 50A, 50B, 50C, 520, 522, 52A, 53A, 700, 701, 720, 721, 90A, 920, 921, 922, 923. This waste stream consists of many different inorganic and organic solids (e.g., particulates, absorbed liquids, sludges, resins, soils) and labpacks that are contaminated with organic regulated dangerous waste constituents, including PCBs. This waste stream does not include hazardous debris other than incidental debris material commingled with the non-debris.	940	19	11	12	7.0	0.0

Table 1-1. Stored Volumes of Mixed Waste and Generation Projections.

Treatability Group Name	Description <sup>1</sup>	Current Inventory (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2006 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2007 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2008 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2009 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2010 (m <sup>3</sup> ) <sup>2</sup>
MLLW-04A - O/C Hazardous Debris	This treatability group is for waste that meets the definition of hazardous debris as defined in 40 CFR 268.2, and the waste contains physical and/or chemical constituents that meet the definition of organic/carbonaceous waste as defined in WAC 173-303-040. The physical characteristics include paper, plastic, wood, rubber, rags, and lesser quantities of metallic and inorganic waste components. Applicable WSRds may include: BAB, MGD, PFD, PUD, WDD, H3D, RCB, BLD, DBR, UUU, 334, 600, 601,603, 605, 606, 607, 60A, 60B, 620, 621, 622, 625, 626, and 627.	4,100	49	44	53	56	46
MLLW-04B - Non-O/C Hazardous Debris	This treatability group is for waste that meets the definition of hazardous debris as defined in 40 CFR 268.2, and the waste does not contain physical and/or chemical organic/carbonaceous waste constituents in excess of 10% as defined in WAC 173-303-040. The physical characteristics include metals, inorganic debris items and lesser quantities of O/C waste components (paper, plastic, wood, etc.). Applicable WSRds may include: ASB, 640, 641, 645, 646, and 647.	15	0.2	0.2	0.2	0.2	0
MLLW-05 - Radioactive Lead Solids	This treatability group is for waste that is determined to meet the "Radioactive Lead Solids Subcategory" as described in 40 CFR 268.40. Applicable WSRds for this treatability group are: EPB, 800, 801, 802, 803. This treatability group consists of many different forms of radioactive lead solids including bricks, sheets, shot-filled blankets, lead-lined debris items where the lead comprises more than 50% of the waste matrix. The waste was and is generated by many onsite generating organizations and offsite generators.	16	0.52	0.4	0.4	0.2	0
MLLW-06 - Mercury Wastes	This treatability group is for waste that is determined to meet the "Elemental Mercury Contaminated with Radioactive Materials" subcategory as described in 40 CFR 268.40. Applicable WSRds for this treatability group are: EHG, HHG, 810, 811, and 812. This treatability group consists of liquid mercury, partially amalgamated mercury, mercury spill cleanups, and some debris waste items packaged in with the mercury waste.	16	0.32	0.2	0.2	0	0
MLLW-07 - RH and Large Container	WSRds: DBL, HRW, 450, 550, 650, All MLLW WSRds (except for 930 and 931) packages greater than or equal to 10 cubic meters, and All MLLW WSRds (except for 930 and 931) with high Rad Waste defined per the Treatability Group Cross-Matrix. This waste stream is comprised of RH-MLLW with various chemical (organics, inorganics, metals) and physical (particulates, debris, sludges, etc.) characteristics. Many different regulated constituents could be represented in this waste stream; however, the primary waste type is heterogeneous debris from the SST/DST Systems operations. This waste stream also contains waste in oversized containers, not typically suited for commercial treatment that will be treated using the M-91 MLLW capability.	2,900	0	0	0	0	0
MLLW-08 - Unique Waste	WSRds: BER, 821, 823, 84A. This waste stream consists of unique wastes that require special processing not typically employed for the other MLLW waste streams. Example includes beryllium powder, requiring RMETL or RTHRM. See 40 CFR 268.42 for the definitions of RMETL or RTHRM.	21	0	0	0	0	0



Table 1-1. Stored Volumes of Mixed Waste and Generation Projections.

Treatability Group Name	Description <sup>1</sup>	Current Inventory (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2006 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2007 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2008 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2009 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2010 (m <sup>3</sup> ) <sup>2</sup>
MLLW-09 – Radioactive batteries	WSRds: BAT and 830. This waste consists of mercury, silver and cadmium batteries from various onsite locations and from offsite generators.	13	0.32	0.2	0.2	0	0
MLLW-10 - Reactive Metals	WSRds: ENA, 44A, 44B, 820, 822, 82A. This waste consists of water-reactive metals and compounds, typically including sodium metal. May also consist of water-reactive cyanides.	26	0.001	0.001	0.001	0.001	0
PUREX Plant	Concrete rubble contaminated with trace chromium as a corrosion product. No additional waste will be stored at this location as the PUREX Plant is under long-term S&M.	1.0	0	0	0	0	0
PUREX Storage Tunnels	Varies from very large equipment vessels with lead counterweights to very fine mixed waste powder in canisters. Waste receipt into the TSD unit began in 1960. The TSD unit waste inventory list is contained in the Hanford Facility RCRA Permit, Attachment 28, Chapter 3.0, Waste Analysis Plan. Waste is expected to contain a combination of TRU and TRUM.	2,800	0	0	0	0	0
Purgewater	Groundwater contaminated with various constituents.	3,700	1,135	1,135	1,135	1,135	1,135
SST Waste	Basic aqueous slurry with layers of saltcake and/or sludge. The sludge consists of solids (i.e., hydrous metal oxides) precipitated from the neutralization of acid waste. The saltcake consists of the various salts formed from the evaporation of water.	11,000	0	0	0	0	0
TRUM-CH Standard Processing	The waste came from various facilities on and off the Hanford Site. The waste contains plastic/polyurethane, rubber, iron-based metal, soil, paper, cardboard, lead, rags, cement, stainless steel, wood, styrofoam, glass, absorbent/kitty litter, filters, lead shielding, carbon steel, fiberglass, brick/firebrick, plastic liner, shielding, concrete, animal waste, paints, ceramics, sludges, asbestos, aluminum, diatomaceous earth, resins, copper metal, lead, water, floor sweepings, batteries, leather, liquid, teflon, cork, cotton, light bulbs, urethane and wax. Waste packages in this treatability group include containers up to 55-gallons and WIPP Standard Waste Boxes. Any other package size is included in the TRUM-CH Special Processing treatability group. Note that some TRUM-CH containers will be found to be TRUM-RH upon repackaging or processing of the waste.	3,400	20	6.6	1.6	1.0	26
TRUM-CH Special Processing	TRUM waste from various generating activities around the Hanford Site. The waste contains metals including steel shielding, plastic/polyurethane, wood, paper/cardboard, glass, filters, soil, miscellaneous/unknown/other, rags, lead and lead shielding, plexiglas, styrofoam, asbestos, rubber, glass, sorbents/kitty litter, cement and concrete. Package size includes any CH TRUM waste that is not in a container up to 55-gallons in size or a WIPP Standard Waste Box.	4,900	6.4	0	0	0	0

Table 1-1. Stored Volumes of Mixed Waste and Generation Projections.

Treatability Group Name	Description <sup>1</sup>	Current Inventory (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2006 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2007 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2008 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2009 (m <sup>3</sup> ) <sup>2</sup>	Generation Projection 2010 (m <sup>3</sup> ) <sup>2</sup>
TRUM-RH	The waste consists of inner container, iron-based metals, lead, soil, lead shielding, and steel shielding. Waste is from the clean-out of hot cells from research/development laboratories. The relative waste quantity is small, because the waste matrix contains a large percentage of lead and steel shielding materials. TRUM is considered remote handled if any waste component has a contact dose rate >200 mrem/hr. In addition, in order to provide an estimate of what might be remote handled, TRUM will be reported as remote handled if the package is known to contain lead shielding.	230	1.0	1.0	1.0	1.0	1.0

<sup>1</sup> Waste specification record (WSRd) indicates waste treatment and/or disposal pathway.

<sup>2</sup> Volume numbers have been rounded to two significant figures.

AOC	area of contamination	O/C	organic/carbonaceous
BDAT	best demonstrated available technology	OU	operable unit
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>	PCB	polychlorinated biphenyl
CFR	Code of Federal Regulations	PNNL	Pacific Northwest National Laboratory
CH	contact handled	PUREX	Plutonium-Uranium Extraction (Plant)
CSB	Canister Storage Building	RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
CWC	Central Waste Complex	REC	radiochemical engineering cells
D&D	decontamination and decommissioning	REDOX	Reduction-Oxidation (Plant)
DST	double-shell tank	RH	remote handled
ERDF	Environmental Restoration Disposal Facility	ROD	record of decision
ETF	200 Area Effluent Treatment Facility	S&M	surveillance and maintenance
HEPA	high-efficiency particulate air	SST	single-shell tank
HLV	high-level vault	TRU	transuranic
HWTU	Hazardous Waste Treatment Unit	TRUM	transuranic mixed
IHLW	immobilized high-level waste	TSCA	<i>Toxic Substances Control Act of 1976</i>
ILAW	immobilized low-activity waste	WAC	<i>Washington Administrative Code</i>
LDR	land disposal restrictions	WESF	Waste Encapsulation and Storage Facility
LERF	Liquid Effluent Retention Facility	WHF	Waste Handling Facility
MLLW	mixed low-level waste	WIPP	Waste Isolation Pilot Plant
		WSRd	Waste Specification Record

Table 1-2. Treatability Group Summary of Storage, Characterization, and Treatment Activities.

Treatability Group Name	Current Inventory (m <sup>3</sup> ) <sup>1</sup>	Projected Generation Volume 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>	Planned Characterization Schedule	Treatment Process	Projected Volume to be Treated 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>
221-T Containment Building	58	0	Completed.	Not yet determined.	0
221-T Tank System	12	0	Will be done in conjunction with T Plant Complex Canyon disposition.	Not yet determined.	0
222-S Laboratory Complex	8.7	55	Ongoing.	Commercial - Stabilization, Commercial - Thermal	64
222-S T8 Tunnel	0.2	0	Will be done in conjunction with 222-S Laboratory building disposition.	Not yet determined.	0
241-CX Tank System	3.0	0	To be determined through development of 200-IS-1 documentation.	Not yet determined.	0
324 Building REC Waste	5.0	10	Completed.	As necessary, ERDF macroencapsulation.	0
325 HWTU	8.3	20	Ongoing.	HWTU, Commercial - Stabilization, Commercial - Thermal	28
B Plant Cell 4	1.4	0	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	Not yet determined.	0
B Plant Containment Building	290,000 kg	0	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	Not yet determined.	0
Cesium and Strontium Capsules	2.0	0	Completed.	Not yet determined.	0
DST Waste	98,000	190	Ongoing.	WTP vitrification.	0
ERDF—Treatment	83	63,000	Ongoing.	ERDF treatment.	63,000
HSTF	2.1	0	To be determined through development of 200-IS-1 documentation.	Not yet determined.	0
LERF/ETF Liquid Waste	37,000	340,000	Ongoing.	ETF.	340,000
MLLW-01 - LDR Compliant Waste	210	150	Completed.	No treatment required.	No treatment required.
MLLW-02 - Inorganic Non-Debris	280	25	M-091-42 <sup>2</sup>	Commercial-Stabilization.	310 <sup>3</sup>
MLLW-03 - Organic Non-Debris	940	48	M-091-12, M-091-12A, and M-091-42 <sup>2</sup>	Commercial-Thermal.	1,200 <sup>3</sup>

Table 1-2. Treatability Group Summary of Storage, Characterization, and Treatment Activities.

Treatability Group Name	Current Inventory (m <sup>3</sup> ) <sup>1</sup>	Projected Generation Volume 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>	Planned Characterization Schedule	Treatment Process	Projected Volume to be Treated 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>
MLLW-04A - O/C Hazardous Debris	4,100	250	M-091-42 <sup>2</sup>	Commercial-Thermal.	4,400 <sup>3</sup>
MLLW-04B - Non-O/C Hazardous Debris	15	0.8	M-091-42 <sup>2</sup>	Commercial-Macroencapsulation.	See MLLW-04A
MLLW-05 - Radioactive Lead Solids	16	1.5	M-091-42 <sup>2</sup>	Commercial-Macroencapsulation.	See MLLW-04A
MLLW-06 - Mercury Wastes	16	0.72	M-091-42 <sup>2</sup>	Commercial-Amalgamation.	70 <sup>3</sup>
MLLW-07 - RH and Large Container	2,900	0	M-091-15 and M-091-43 <sup>2</sup>	M-091-43.	740 <sup>3</sup>
MLLW-08 - Unique Waste	21	0	M-091-42 <sup>2</sup>	Not yet determined.	See MLLW-06
MLLW-09 - Radioactive Batteries	13	0.72	M-091-42 <sup>2</sup>	Not yet determined.	See MLLW-06
MLLW-10 - Reactive Metals	26	0.004	M-091-42 <sup>2</sup>	Not yet determined.	See MLLW-06
PUREX Plant	1.0	0	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	Not yet determined.	0
PUREX Storage Tunnel	2,800	0	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	Not yet determined.	0
Purgewater	3,700	5,700	Ongoing.	Solar evaporation at PSTF and ETF treatment.	9,400
SST Waste	11,000	0	Ongoing.	WTP vitrification.	0
TRUM-CH Standard Processing	3,400	55	M-091-42 <sup>2</sup>	WRAP Facility and/or T Plant Complex.	M-091 <sup>2</sup>
TRUM-CH Special Processing	4,900	6.4	M-091-44 <sup>2</sup>	M-091 TRUM.	M-091 <sup>2</sup>
TRUM-RH	230	5.0	M-091-44 <sup>2</sup>	M-091 TRUM	M-091 <sup>2</sup>

<sup>1</sup> Volume numbers in this table have been rounded to two significant figures. Due to rounding, the in some cases, the summation of Table 1-1 numbers do not add up to the numbers in this Table.

<sup>2</sup> Characterization and Treatment will be performed in accordance with applicable M-091 milestones.

<sup>3</sup> Volumes reflect FY2006-FY009 numbers. MLLW-04A, MLLW-04B, and MLLW-05 numbers are grouped together. MLLW-06, MLLW-08, MLLW-09, and MLLW-10 as also grouped together.

CH contact handled  
DST double-shell tank  
ERDF Environmental Restoration Disposal Facility  
ETF 200 Area Effluent Treatment Facility  
HSTF Hexone Storage and Treatment Facility  
HWTU hazardous waste treatment unit

LDR land disposal restrictions  
LERF Liquid Effluent Retention Facility  
MLLW mixed low-level waste  
O/C organic/carbonaceous  
PSTF Purgewater Storage and Treatment Facility  
PUREX Plutonium-Uranium Extraction (Plant)

RCRA Resource Conservation and Recovery Act of 1976

REC radiochemical engineering cells  
RH remote handled  
SST single-shell tank  
TRUM transuranic mixed  
WIPP Waste Isolation Pilot Plant  
WRAP Waste Receiving and Processing Facility  
WTP Waste Treatment Project

Table 1-3. Explanation of Table 1-4, Potential Mixed Waste.

Column	Column Title	Content Definition
A	Company, project	Self-explanatory.
B	Common name or description	Self-explanatory.
C	Facility number	Self-explanatory.
D	Solid waste with potential for mixed waste not integral to the building or structure (no use)	“Stuff” (e.g., equipment, materials) that is not currently in use and for which no future use is currently known, but for which the final disposition has not yet been determined. The “stuff” is not currently considered mixed waste and may or may not currently be contaminated, but includes items with the potential for becoming mixed waste, depending on future decisions regarding the ultimate use and disposition. “Stuff” integral to the building is not to be included. “None” in this column indicates the project/facility contains no “stuff” known to be in this category.
E	Materials with potential to become solid waste and subsequently mixed waste (in standby, possible use)	“Stuff” (e.g., equipment, materials) that is currently in “standby” and may at some point, if it becomes waste, designate as mixed waste. Provide details for standby equipment/material that has a clear use or path for reuse/recycling, but may at some point, if/when it becomes waste, designate as mixed waste. A future use must be documented for material to be included in column E of the Potential Mixed Waste Table. Documentation of the future use of items in column E shall be available upon request. <b>Columns D and E encompass contents of buildings and structures only. Floor sweepings, dust, etc., are not included. The structures themselves, including contaminated walls, floors, etc., are not included. Equipment and chemicals that are in use are not included.</b>
F	DOE assessment of storage methods	Indicate when the DOE assessment for the purpose of meeting LDR report requirements is scheduled. Provide an alternative explanation if required (e.g., the assessment completion date, key facility in surveillance and maintenance phase, further DOE LDR assessment not needed).
G	Schedule information	Include schedule information relative to materials detailed in these columns. Include references to pertinent documents (closure plans, RODs) and identify any applicable operable units or other Tri-Party Agreement drivers for remediation. Provide a date for completing the data gap plan, if applicable. Also, for major negotiations related to the path forward for the potential mixed waste, such as the start of facility transition or deactivation, provide a date for starting the negotiations with the regulators.
H	Integrating factors	Include factors that should be considered when determining when negotiations should occur. These include factors such as relative threat to human health and the environment of no action, ties to other activities such as operable unit remediation, ties of action to facility missions, etc.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford Inc. K Basin Closure Project	100-K Area	105-KE and 105-KW	105-KE: Old electrical equipment, lead blankets  105-KW: None	105-KE: Oil drained from equipment, chemicals in storage cabinets, and lead used as shielding for Ion Exchange Columns.  105-KW: Underwater lead and lead in the back of the utility truck.	Completed 2 <sup>nd</sup> quarter CY 2005	Anticipated to be dispositioned by the end of FY 2007.  Data gap Plan: Completed 2 <sup>nd</sup> quarter CY 2005	None
Fluor Hanford, Inc., PFP Closure Project	216-Z-9 Crib Soil Removal Glovebox (inactive)	216Z9A	Soil Removal Glovebox. Air compressor (potential for regulated oil). Residual contamination within glovebox (potential for mixed wastes during cleanout). Note: Glovebox probably will function as containment when conducting facility cleanout/transition activities.	None	DOE assessment: Completed 3 <sup>rd</sup> quarter CY 2001	To be dispositioned as CERCLA non-time critical removal action.  Tri-Party Agreement milestone M-083-41, Complete Transition and Dismantlement of the 216-Z-9 Crib Complex (due date: September 30, 2010)  Data gap plan: NA Starting negotiations: NA (completed)	None

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., PFP Closure Project	Plutonium Finishing Plant	234-5Z	Radioactive Acid Digestion Test Unit (RADTU) Gloveboxes (potential for residual contamination during cleanout). Note: Gloveboxes to be maintained and used for containment when conducting facility cleanout/transition activities.	Residues and low-grade SNM solids.	DOE assessment: Completed 3 <sup>rd</sup> quarter CY 2001	<p>To be dispositioned as CERCLA non-time critical removal action.</p> <p>M-083-44, Complete Transition of the 234-5Z (Plutonium Conversion Facility) and ZA (Plutonium Conversion Support Facility), 243-Z Low Level Waste Treatment Facility, 291-Z Exhaust Building, and 291-Z-1 Exhaust Stack to support PFP Decommissioning, due September 30, 2015.</p> <p>Tri-Party Agreement milestone M-083-14, Complete 100% of the Legacy Pu Holdup Removal as Defined in the Legacy Pu Holdup Removal Plan for PFP required by MX-083-12-T01 (due date: September, 2006).</p> <p>Data gap plan: NA Starting negotiations: NA (completed)</p>	None

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., PFP Closure Project	Plutonium Reclamation Facility	236Z	Pu nitrate reclamation tanks, piping, and control equipment. Miscellaneous treatment tanks, piping, and control equipment. Containment gloveboxes (reclamation and miscellaneous treatment). Chem. prep tanks, piping, and control equipment. Residual contamination within inactive process equipment and gloveboxes (potential for mixed waste during cleanout). Potential for liquids within inactive tanks, vessels, and piping. Miscellaneous tools and maintenance equipment located within canyon cell. Note: Gloveboxes to be maintained and used for containment when conducting facility cleanout/transition activities.	None.	DOE assessment: Completed 3 <sup>rd</sup> quarter CY 2001	To be dispositioned as CERCLA non-time critical removal action.  Tri-Party Agreement milestone M-083-43, Complete Transition of the 242-Z Waste Treatment Facility and 236-Z Plutonium Reclamation Facility to Support PFP Decommissioning (due date: September 30, 2013).  Data gap plan: NA Starting negotiations: NA (completed)	None



Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., PFP Closure Project	MW Treatment and Storage Tanks	241Z	Heels, associated piping, line flushing and sludge cleanout. Tank D-6 deactivated in 1972 because of failure. Waste transferred from tank and tank/piping isolated.	None	DOE assessment: Completed 1 <sup>st</sup> quarter CY 2001	To be dispositioned as CERCLA non-time critical removal action.  Tri-Party Agreement milestone M-083-42, Complete Transition and Dismantlement of the 241-Z Waste Treatment Facility (due date: September 30, 2011) M-083-32 Complete Closure Of The PFP 241-Z TSD Unit (due date: September 30, 2011)  Data gap plan: NA Starting negotiations: NA (completed)	Tank D-6 is not included in the 241-Z TSD Unit Closure Plan. There is a potential interface with the PFP Below Grade EE/CA.
Fluor Hanford, Inc.,	PFP Settling Tank	241-Z-361	Tank containing waste from past practices	None	DOE assessment: 1 <sup>st</sup> quarter CY 2006	To be dispositioned as CERCLA remedial action during FY 2009 to FY 2011.  Data gap plan: 1 <sup>st</sup> quarter CY 2007 Starting negotiations: NA. Characterization completed ("Tank Characterization Report for 241-Z-361", FH 0107145, 12/20/01).	None.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., PFP Closure Project	Waste Treatment Facility (inactive)	242Z	Miscellaneous process tanks, first floor and mezzanine level. Process piping. Containment gloveboxes. Potential for liquids within tanks, vessels, and piping. Residual contamination within gloveboxes, tanks, and piping (potential for mixed waste during cleanout).	None	No assessments. Facility is sealed currently because of high levels of radioactive contamination resulting from cation exchange column explosion, August 1976. DOE assessment: NA	To be dispositioned as CERCLA non-time critical removal action.  Tri-Party Agreement milestone M-083-43, Complete Transition of the 242-Z Waste Treatment Facility and 236-Z Plutonium Reclamation Facility to Support PFP Decommissioning (due date: September 30, 2013).  Data gap plan: NA Starting negotiations: NA (completed)	None.
Fluor Hanford, Inc., PFP Closure Project	SNM Storage/ Repackaging	2736Z	None	Residues and low-grade SNM solids.	DOE assessment: Completed 3 <sup>rd</sup> quarter CY 2001	Tri-Party Agreement milestone M-083-00A, Complete PFP Facility Transition and Selected Disposition Activities (due date: September 30, 2016).  Data gap plan: NA Starting negotiations: NA (completed)	None

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., D&D Project	Rail Car Staging Area	212R Rail Spur, and PUREX Rail Cut	None	Rail car components (lead casks, liquids within the lead casks, bearings, and lubricants)	DOE assessment: 4 <sup>th</sup> quarter CY 2005	The equipment reuse/recycling program funding is no longer available. Without future funding, these materials will likely have to be disposed of as solid waste. Disposition options are being evaluated. Data gap plan: 4 <sup>th</sup> quarter CY 2006 Starting negotiations: TBD	None
Fluor Hanford, Inc., D&D Project	200 North Area	212-N, 212-P, 212-R	212-R contains a burial box with some radiologically-contaminated equipment. The 212-N transfer bay contains 14 wooden boxes of suspected TRUM nuclear fuel fabrication equipment from the 308 Building, Room 213, moved in 1982, and a single wooden box from 308 Building, Room 212, transferred in 1983. No non-radioactive contamination has been identified in this facility that would support a MW designation. 212-P used to store PCBs. PMW will be evaluated in the upcoming assessment.	None	DOE assessment: 4 <sup>th</sup> quarter CY 2005	Data gap plan: 4 <sup>th</sup> quarter CY 2006 Starting negotiations: TBD	None

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., D&D Project	IMUSTs not associated with a building	216-BC-201, 216-BY-201, 216-TY-201, 241-B-361, 241-U-361, 241-T-361	Tank system heels in each IMUST	None	DOE assessment: 2 <sup>nd</sup> quarter CY 2006	Data gap plan: 2 <sup>nd</sup> quarter CY 2007 Starting negotiations: TBD	The IMUSTs will be dispositioned with their respective cribs. Further information regarding the remediation strategy can be found in DOE/RL-98-28, Rev. 0, <i>200 Areas Remedial Investigation/ Feasibility Study Implementation Plan – Environmental Restoration Program.</i>
Fluor Hanford, Inc., D&D Project	224-T (Includes TRUSAF)	224-T	D1: Potential for liquid in vessels. The presence or absence of mixed waste in the 224-T cells is not documented and the potential for waste was identified in the Silver List D2: There is a glovebox/hood with vessels in the glovebox/hood, but mixed waste is not expected to be found in these items.	None	DOE assessment: Completed 1 <sup>st</sup> quarter CY 2002	D1 and D2: Data gap plan: Completed 4 <sup>th</sup> quarter CY 2002 Starting negotiations: 2012	The potential for MW presence in the cells is a former Silver List issue that has not been closed out.  Facility decommissioning is being planned.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., D&D Project	231Z	231Z	Liquid in vessels and chemicals in gloveboxes.	None	DOE assessment: 1 <sup>st</sup> quarter CY 2006	Data gap plan: 1 <sup>st</sup> quarter CY 2007 Starting negotiations: TBD	The potential for MW to be present is a former Silver List issue that has not been closed out. Media that might designate as MW, if present, are expected to be contained in stainless steel vessels. It is assumed that the media, if present, are stable and pose no threat to human health or the environment.
Fluor Hanford, Inc., D&D Project	242-B/BL	242-B/BL	None	Although no specific matrix can be identified at this time, a possibility exists that matrices could be found which would qualify as PMW.	DOE assessment: 1 <sup>st</sup> quarter CY 2007	Data gap plan: 1 <sup>st</sup> quarter CY 2008 Starting negotiations: TBD	The lead bricks and shielding were removed in 2003.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., D&D Project	B Plant	207-BA, 211-B, 212-B, 217-B, 221-B, 221-BB, 221-BF, 221-BG, 271-B, 276-B, 291-BA, 291-B, 291-BB, 291-BD, 291-BF, 291-BG, 292-B, 2711-B, 2715-B, 270-E-1 (IMUST)	S&M Plan, DOE/RL-99-24, identifies the hazardous material remaining in the facility. Tank heels relate to TSD tank system and 270-E-1.	S&M Plan, DOE/RL-99-24, identifies the hazardous material remaining in the facility.	DOE assessment: NA	D & E: As described in the S&M Plan, DOE/RL-99-24, Rev 0. Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	B Plant is in the S&M phase of the facility decommissioning process, as described in Chapter 8.0 of the Tri-Party Agreement. Final disposition of the IMUST and B Plant will be scheduled such that the activities are performed concurrently. See stored/forecasted portion of the report for details regarding waste stored in Cell 4 and in the containment building.
Fluor Hanford, Inc., D&D Project	224-B Building	224-B	Chemicals associated with operations at the 224-B Building may exist as residual deposition in tanks. Potential mixed waste remains in the 224-B process cells and vessels.	None	DOE assessment: 4 <sup>th</sup> quarter CY 2006	Data gap plan: 4 <sup>th</sup> quarter CY 2007 Starting negotiations: TBD	Facility decommissioning is being planned.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., D&D Project	PUREX	202-A, 203-A, 204-A, 206-A, 211-A, 212-A, 213-A, 214-A/B/C/D, 215-A, 216-A, 225-EC, 271-AB, 276-A, 281-A, 291-A, 291-AB/AC/AD/AE/AG/AH/AJ/AK., 291-A-1, 292-AA/AB, 293-A, A93-AA, 294-A, 295-A, 295-AA/AB/AC/AD/AE, 296-A-1, 296-A-2, 296-A-3, 296-A-5A/5B, 296-A-6/7/8/9/10/14/24, 2711-A-1, 2712-A, 2714-A/U, 217-A, 252-AC/AB, 216-A-5 (IMUST)	S&M Plan, DOE/RL-98-35, identifies the hazardous material remaining in the facility. Tank heels relate to TSD tank system and 216-A-5.	S&M Plan, DOE/RL-98-35, identifies the hazardous material remaining in the facility.	DOE assessment: NA	Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	PUREX is in the S&M phase of the facility decommissioning process described in Chapter 8.0 of the Tri-Party Agreement. Final disposition of the IMUST at PUREX will be scheduled such that the activities are performed concurrently. See the stored/forecasted portion of the report for TSD waste storage at PUREX.
Fluor Hanford, Inc., D&D Project	REDOX	202-S, 291-S, 292-S, 293-S, 2718-S, 211-S, 2711-S, 2715-S, 2904-SA, 2710-S, 2706-S,	S&M Plan, DOE/RL-98-19, identifies the hazardous material remaining in the facility.	S&M Plan, DOE/RL-98-19, identifies the hazardous material remaining in the facility.	DOE assessment: NA	Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	REDOX is in the S&M phase of the facility decommissioning process described in Chapter 8.0 of the Tri-Party Agreement.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., D&D Project	U Plant	221-U, 276-U, 211-UA, 291-U, 292-U, 241-WR-001, 241-WR-002, 241-WR-003, 241-WR-004, 241-WR-005, 241-WR-006, 241-WR-007, 241-WR-008, 241-WR-009, 2716-U, 2714-U	S&M Plan, DOE/RL-98-20, identifies the hazardous material remaining in the facility.	S&M Plan, DOE/RL-98-20, identifies the hazardous material remaining in the facility.	DOE assessment: NA	Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	The final disposition of 221-U, 276-U, and 291-U is being evaluated under CERCLA as a part of the Canyon Disposition Initiative. 275-UR and 2714-U, among others, are being dispositioned under a CERCLA action memorandum calling for demolition of the facilities. Final disposition of all of the U Plant structures will be coordinated as parts of the overall U Plant Area closure.



Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., D&D Project	UO3 Facility	224-U, 203-UX, 211-U, 207-U, 270-W (IMUST)	S&M Plan, DOE/RL-98-22, identifies the hazardous material remaining in the facility.	S&M Plan, DOE/RL-98-22, identifies the hazardous material remaining in the facility.	DOE assessment: NA	Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	The 272-U, 2715-UA, 203-U, and 2716-U, among others, were dispositioned under a CERCLA action memorandum calling for demolition of the facilities. 207-U is part of the 200-CW-5 CERCLA Operable Unit, and 270-U is part of the 200-PW-2 CERCLA Operable Unit. Final disposition of all parts of the UO3 Facility will be coordinated as parts of the overall U Plant Area closure.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Waste Management Project	T Plant Canyon, RR Tunnel, Head-end	221-T	Process cells containing an inventory of PMW include inaccessible cells, process cells proposed to be cleaned, and process cells with potentially no proposed future uses. Inaccessible cells include: 20R, 20L, and 16L. Proposed cells to be cleaned include (subject to change): 19R, 18R, 10R, and 7R. Cells with potentially no proposed future uses include (subject to change): 19L, 18L, 17L, 14L, 12R, 12L, 9R, 8L, 6R, 4R, 4L, and 3R. Examples of inventory are jumpers, tanks, pumps, pump racks, centrifuges, fuel racks, fuel canisters, and agitators.	Items having the potential for reuse include cover blocks, lead shielding (including portable lead walls), hand tools and tool boxes, metal ramp, chokers and slings, hoists, railroad ties, portable fences, cutters (e.g., jaws), portable pumps and hoses, impact wrenches, spill pallets, HEPA vacuums, HEPA filter and duct work, torch cart and welding cart, work bench, portable exhauster, aqueous make-up tanks, drum crusher, plasma arc cutter.	DOE assessment: 3 <sup>rd</sup> quarter CY 2005	Cells with no proposed future use will be addressed when final decommissioning of the canyon takes place. Data gap plan: 3 <sup>rd</sup> quarter CY 2006. Starting negotiations: Completed. These activities have been discussed with Ecology during the T Plant Complex Dangerous Waste Permit Application Part A and Part B negotiations.	T Plant received its first shipment of K-Basin North Loadout Pit Sludge on January 5, 2005.
Fluor Hanford, Inc., Waste Management Project	T Plant Canyon, Cell 11-L	221-T	Tank in Cell 11-L. The cell 11-L tank contains approximately 500 gallons of a green liquid and saltcake mixture that will be designated as F001-F005, D002, D006, D007, D008, and D010 when removed from the tank.	None	DOE assessment: 3 <sup>rd</sup> quarter CY 2005	Cell 11-L will be dispositioned along with the other RCRA-past practice process cells in the T Plant canyon. Data gap plan: 3 <sup>rd</sup> quarter CY 2006. Starting negotiations: Completed. These activities have been discussed with Ecology during the T Plant Complex Dangerous Waste Permit Application Part A and Part B negotiations.	Any commitment date will be dependent on the outcome of the Canyon Disposition Initiative.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Waste Management Project	T Plant Complex IMUSTs	292-TK-1 and 292-TK-2	292-TK-1 and 292-TK-2 consist of two stainless steel 55-gallon drums encased in concrete. These units contained a mixture of irradiated fuel and nitric acid. The solutions in the tanks were then neutralized with molar equivalents of sodium hydroxide.	None	DOE assessment: 3 <sup>rd</sup> quarter CY 2005	This WIDS site will be addressed as part of the CERCLA remediation activity. Data gap plan: 3 <sup>rd</sup> quarter CY 2006 Starting negotiations: TBD	Tanks are part of CERCLA remediation process, scheduled for completion of Remedial Investigation/ Feasibility Study process by Dec. 2008. Prioritization discussions have taken place (4/23/01).
Fluor Hanford, Inc., Waste Management Project	Waste Neutralization Facility (340-Vault Tanks)	340	340 Vault tank heels and clean out residues and associated equipment (valves, piping, pumps, light fixtures) may designate as MW.	None.	DOE assessment: Completed 4 <sup>th</sup> quarter CY 2004	Potential MW disposition will be performed in accordance with Tri-Party Agreement milestone M-094-00, Complete Disposition of 300 Area Surplus Facilities (due 9/30/2018). Data gap plan: Completed 4 <sup>th</sup> quarter CY 2004. Starting negotiations: Completed as part of the River Corridor negotiations	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.
Battelle Memorial Institute, Pacific Northwest National	Radiochemical Processing Laboratory	325	Tank system formerly used for product materials subsequently used as feedstock for research projects. Tanks have been drained and flushed, but remain in place.	Hot cells, hoods, and gloveboxes used for radioactive materials and waste analysis and research (reused as needed for new or expanded research activities)	DOE assessment: Completed 4 <sup>th</sup> quarter CY 2001	Data gap plan: Completed 4 <sup>th</sup> quarter CY 2002 Starting negotiations: NA (no data gaps identified)	Part of an active facility; no special hazards known.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
CH2M HILL, Hanford Group, Inc., Tank Farms	702-A Ventilation Building	241-A-702	Seal pot that received liquids from the HEPA pre-heater.	None	DOE Assessment: Completed 4 <sup>th</sup> Quarter 2004	Data gap plan: None, as sample analysis for similar ventilation systems indicate it is unlikely the heel in the seal pot will designate as mixed waste. Starting negotiations: NA.	None
CH2M HILL, Hanford Group, Inc., Tank Farms	Double-Shell Tank Farms	241-AN, AW, AP, AY, AZ, SY	Contaminated unusable equipment, e.g., ductwork, exhausters, piping, etc.	None	DOE Assessments: Continuing	Data gap plan: The equipment will be handled in accordance with the management procedure. Starting negotiations: NA. Equipment will be taken care of on a continuous basis.	None
CH2M HILL, Hanford Group, Inc., Tank Farms	Single-Shell Tank Farms	241-A, AX, B, BX, BY, C, T, TX, TY, S, SX, U, 244-AR, 244-CR	Contaminated unusable equipment, e.g., ductwork, exhausters, piping, ion exchange columns, etc.	None	DOE Assessments: Continuing	Data gap plan: The equipment will be handled per the management procedure. Starting negotiations: NA. Equipment will be taken care of on a continuous basis.	None
CH2M HILL, Hanford Group, Inc., Tank Farms	Evaporators	242-S, T	Liquids/solids in process tanks and piping, debris	None	DOE Assessment: The assessment report had not been completed as of 4 <sup>th</sup> quarter CY 2005.	Data gap plan: Deferred until facility enters D&D due to industrial and radiological safety concerns with entering the portions of the facility necessary to gather meaningful data. Starting negotiations: NA.	None

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Washington Closure Hanford, Environmental Restoration	100-B Reactor Facilities	105-B	Miscellaneous contaminated material remains in the facility.	None	DOE assessment: Completed 6/15/04. Assessment excludes reactor.	Data gap plan: Completed 6/15/04 Starting negotiations: Approval of Tri-Party Agreement Change Request M-093-01-02 completed Tri-Party Agreement Milestone M-093-14, Initiate Negotiations for the Remaining Surplus Reactor Disposition Schedules.	The reactor is a key facility under Section 8.0 of the Tri-Party Agreement.
Washington Closure Hanford, Environmental Restoration	100-KE and KW Reactor Facilities	115-KE, 115-KW	Miscellaneous contaminated material in the facility is being managed as part of surveillance and maintenance activities	None	DOE assessment: Completed 6/15/04. Assessment excludes reactor.	Waste will be generated as part of the Interim Safe Storage activities. Data gap plan: Completed 6/15/04 Starting negotiations: Completed as a part of River Corridor negotiations. Tri-Party Agreement Milestone M-093-22, Complete 105-KE and 105-KW Reactor Interim Safe Storage, is due 09/30/2011.	The reactor is a key facility under Section 8.0 of the Tri-Party Agreement. Tri-Party Agreement Milestones M-93-21-T01 and M-93-22-T01 address Interim Safe Storage of 105-KW and 105-KE respectively.

Table 1-4. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Washington Closure Hanford, Environmental Restoration	327 Building	327	None	Lead bricks being stored for future use as shielding during decontamination and decommissioning activities	DOE assessment: Completed December 2002	Lead bricks are being stored for future use in decontamination and decommissioning activities. Data gap plan: Included in the assessment report. Starting negotiations: NA  Demolition required by 2010 per M-094-03. Cleanout schedule to be removal action #2 for the 300 Area.	
Washington Closure Hanford, Environmental Restoration	333 Building	333	Miscellaneous equipment, piping, and ductwork	Miscellaneous equipment, piping, and ductwork. Materials will be evaluated in the future.	DOE assessment: Initiated 1 <sup>st</sup> quarter CY 2003, and completed September 2003.	Potential MW disposition will be performed in accordance with Tri-Party Agreement milestone M-094-03 (due 9/30/2010).  Data gap plan: Completed September 2003 Starting negotiations: Completed during River Corridor negotiations.  Facility is undergoing terminal cleanout and will be demolished by 2007 per action memorandum #1 to meet M-094-06 (proposed).	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.

Table 1-5. Historical List of Materials Deleted from Potential Mixed Waste Table.

Common Name or Description	Facility Number	Last Calendar Year Reported in Table 1-4	"Stuff"/Material Deleted	Reason for Deletion
3711 Building	3711	2004	Lead cask, pipe, pipe joints and metal railing contaminated with lead	Matrices were disposed of in 2005.
2711-E	2711-E	2004	Radiator from crane-suspect lead solder	Matrices were disposed of in 2005.
U03	203-U, 2715-UA, 272-U	2004	Any matrices described in the UO <sub>3</sub> S&M Plan, DOE/RL-98-22	203-U, 2715-UA, and 272-U have been demolished as part of the CERCLA Removal Action.
U Plant	2716-U, 275-UR	2004	Any matrices described in the U Plant S&M Plan, DOE/RL-98-20	2714-U and 275-UR have been demolished as part of the CERCLA Removal Action.
Heavy Equipment Staging Area	4734D	2004	Heavy equipment components	Equipment is no longer cleaned at this location.
PFP Facilities	232-Z, 236-Z, and portions of 234-5Z.	2003	Incinerator and leaching gloveboxes. Inactive process tanks, piping, and control equipment. Reclamation tanks, piping, and control equipment. Miscellaneous tools.	Materials have been dispositioned, did not meet the definition of PMW, or are forecasted to be generated as MW.
340 Facility Complex	340-A, 340-B, and 300 RLWS	2003	Tanks, process piping, ancillary equipment and related equipment.	Facilities did not contain MW or PMW
100 Areas Facilities	Many	2003	Miscellaneous contaminated material	Facilities did not contain MW or PMW
100-N Lead Storage Area	1714-N	2002	Lead sheeting and bricks, lead lined containers, and a lead lined survey booth	Matrix is now included in the stored/forecasted portion of the report for CERCLA lead under the ERDF – Treatment treatability group
242-A Evaporator	242-A	2002	Ion exchange column(s)	The ion exchange column(s) were disposed onsite.
314	314	2002	Large equipment previously used in the facility	LDR assessment concluded facility contained no MW or PMW.
3708	3708	2002	Solid obsolete laboratory equipment	LDR assessment concluded facility contained no MW or PMW.
Heavy Equipment Staging Area	2711E	2001	Miscellaneous equipment	No material left at this location, as it was shipped offsite for reuse.
Rad. Storage Area	3711	2001	Lead bricks	Shipped 9/26/01 to Duratek Inc. in Memphis, TN for decontamination/lead casting
Waste Storage Building	2724WB	2001	Radiators (from motor vehicles)	Shipped 9/26/01 to Duratek, Inc in Memphis, TN for decontamination/metal melt
Plutonium Finishing Plant	234-5Z	2001	E1: Laboratory Reagents E2: Archive Laboratory Samples E3: PR cans that have lead liners. E4: Low-grade SNM solutions not run through the precipitation process, but with potential to become solid waste (e.g. the direct discard process).	E1: These chemicals are in use within the laboratory. E2: Samples are archived in accordance with sample exclusion. E3 and E4: Material is now included on stored/forecasted portion of the report. Note: Only the contents noted were removed from Table C-2. Table C-2 still contains other potential waste in this location.

Table 1-5. Historical List of Materials Deleted from Potential Mixed Waste Table.

Common Name or Description	Facility Number	Last Calendar Year Reported in Table 1-4	"Stuff"/Material Deleted	Reason for Deletion
MW Treatment and Storage Tanks	241-Z	2001	Tank D-9, Treatment chemicals	Tank D9 is in use to mix treatment chemicals. Treatment chemicals are in use in transferring waste from the Plutonium Finishing Plant to Double Shell Tanks. Note: Only the contents noted were removed from Table C-2. Table C-2 still contains other potential waste in this location.
Waste Handling Facility	219-S	2001	Tank 103 and heel content	Combined with existing stored information for the 219-S WHF.
300-RRLWS	RRLWS	2001	Retired radioactive liquid waste sewer piping and ancillary structures might designate as MW.	Below-ground structure: Does not meet reporting criteria for Potential Mixed Waste Table.
2706-T Conex Box	Conex box CC2W0136 and CC2W137	2001	Various decontamination equipment, spill pallets, shipping coolers, carts, hoses, storage cabinets, and sampling equipment.	These conex boxes were opened and the contents visually verified and photographs taken. The photographs clearly demonstrate that the equipment is readily accessible. The equipment will be used in the future as part of the 2706-T Complex operations (e.g., decontamination, sampling, etc.). The photographs are maintained in the T Plant Complex operating record.
224-T (Includes TRUSAF)	224-T	2001	Liquid in the sumps and the deep cell. Two cardboard boxes in the cells.	Determined to not have a hazardous component, and therefore not a mixed waste. Note: Only the contents noted were removed from Table C-2. Table C-2 still contains other potential waste in this location.
C855 (CAT) Substation	252U	2001	Transformer	The transformer has been designated and found not to have a dangerous component. Therefore, it is not mixed waste.
324	324	2001	Shielded glovebox. Potential mixed waste residue. Former Silver List Item 11.8	Glovebox was included in the 4 <sup>th</sup> quarter CY 2002 LDR storage assessment and determined to contain only floor sweeps.
200 ETF	2025E	2001	Thin film dryer rotor	Rotor was rebuilt for reuse at the 200 ETF.
100 K Basins	105-KW	2001	Lead bricks, sheets	The lead has been declared CERCLA waste and reported under the stored/forecasted portion of the report.
Environmental Sciences Laboratory	3720	2001	Laboratory equipment, hoods and gloveboxes used for radioactive materials and waste analysis and research (reused as needed for new or expanded research activities)	Onsite inspection revealed that contaminated equipment is in use. Hoods and gloveboxes listed are part of the structure of the building.
100 C Reactor Facility	105-C, 118-C-4	2001	Reactor core, and equipment remaining in the facility.	Reactor core is part of the structure of the building. Mixed waste is removed during the reactor interim safe storage.
100 D/DR Reactor Facility	105-D, 105-DR, 117-DR, 190-DR	2001	Reactor core, and equipment remaining in the facility.	Reactor core is part of the structure of the building. Mixed waste is removed during the reactor interim safe storage.
100 F Reactor Facility	105-F	2001	Reactor core, and equipment remaining in the facility.	Reactor core is part of the structure of the building. Mixed waste is removed during the reactor interim safe storage.



Table 1-5. Historical List of Materials Deleted from Potential Mixed Waste Table.

Common Name or Description	Facility Number	Last Calendar Year Reported in Table 1-4	"Stuff"/Material Deleted	Reason for Deletion
100 H Reactor Facility	105-H, 1720-HA, 1713-H	2001	Reactor core, and equipment remaining in the facility.	Reactor core is part of the structure of the building. Mixed waste is removed during the reactor interim safe storage.
100-N Reactor Facilities	See Table 1, S&M Plan for the 100-N Deactivated Facilities, DOE/RL-98-64, Rev. 0	2001	Some remaining hazardous materials consisting of activated materials and fission products contained within the reactor block. (Further details are provided in DOE/RL-98-64, Rev. 0, S&M Plan for the 100-N Area Deactivated Facilities)	Reactor core is part of the structure of the building. Mixed waste was removed during the reactor decommissioning.
REDOX	276-S-141/142	2001	Tanks and heel content	The HSTF treatability group was developed to account for the 276-S-141/142 tanks. See Table 1-1.
Semi Works	241-CX-70, 241-CX-71, 241-CX-72, 276-C	2001	Tanks and heel content	The 241-CX Tank System treatability group was developed to account for the 241-CX tanks. See Table 1-1..

## 2.0 ASSESSMENTS OF MIXED WASTE STORAGE AREAS AND POTENTIAL MIXED WASTE

The DOE conducts/oversees assessments of mixed waste storage areas and other areas that could, in the future, be the source of generation of other mixed waste. DOE assessments include reviewing other independent assessments and inspections and contractor self-assessments. In addition, daily, weekly, monthly, quarterly, and annual contractor assessments and inspections are conducted at Hanford Site mixed waste storage areas in accordance with company policy, DOE requirements, permit conditions, and other LDR storage obligations. The LDR storage assessment provides an additional level of review to address circumstances associated with mixed waste and potential mixed waste.

### 2.1 INTRODUCTION

Of the findings and observations that were made from DOE assessments in CY 2005, no indicators requiring global actions for LDR reporting were identified.

### 2.2 ASSESSMENT SCHEDULES

In CY 2005, DOE-RL contractors initiated and/or performed five assessments and completed three CY 2004 assessments. The findings and observations from these assessments are summarized in Table 2-1.

Table 2-1. Summary of DOE-RL Assessment Results.

Assessment Location	Assessment Number	Assessment Start Dates	Findings and Observations
K Basin East	SNFP-ENV-04-MA-0101a	March 2004	No findings and two observations <sup>1,2</sup>
K Basin West	SNFP-ENV-04-MA-0101c	March 2004	No findings and one observation <sup>3</sup>
SNF Complex	SNFP-ENV-04-MA-0101b (KBC-26862)	March 2004	No findings and one observation <sup>4</sup>
2711E	HNF-26863	March 2005	None
241-CX	Not assigned	March 2005	As of December 31, 2005, the assessment report was not finalized
T Plant	Not assigned	October 2005	As of December 31, 2005, the assessment report was not finalized
200 Area North	Not assigned	December 2005	As of December 31, 2005, the assessment report was not finalized
Railcar staging areas	Not assigned	December 2005	As of December 31, 2005, the assessment report was not finalized

<sup>1</sup> Observation: Delete the Location-Specific Data Sheet for the K-Basin lead under the ERDF-Treatment treatability group.

<sup>2</sup> Observation: Create a row for the 105-K East Facility in the PMW table to identify the PMW matrices.

<sup>3</sup> Observation: Create a row or add to an existing row in the PMW table to identify the PMW matrix.

<sup>4</sup> Observation: The lead in the back of the delivery truck will require reporting as PMW in the LDR.

Report the matrix if it is not removed prior to December 31, 2005. If the lead is removed and dispositioned prior to this date, no reporting is required

Table 2-2 lists the locations where DOE-RL plans to conduct assessments in CYs 2006 through 2008.

Table 2-2. DOE-RL Assessments for CYs 2006 through 2008.

Facility/Location	Start Date
241-Z-361 231-Z	1 <sup>st</sup> quarter CY 2006
IMUSTs not associated with a building	2 <sup>nd</sup> quarter CY 2006
Heavy equipment staging area	3 <sup>rd</sup> quarter CY 2006
224-B	4 <sup>th</sup> quarter CY 2006
242-B/BL	1 <sup>st</sup> quarter CY2007
270-W	2 <sup>nd</sup> quarter CY2007

IMUST = inactive miscellaneous underground storage tank

PFP = Plutonium Finishing Plant

Table 2-3 lists the DOE-ORP assessments performed by CH2M HILL and any identified findings and observations. No DOE-ORP assessments are currently scheduled. Post-2005 assessment of tank farm facilities will be negotiated with Ecology in LDR Project Manager Meetings, and documented in related meeting minutes.

Table 2-3. Summary of DOE-ORP Assessment Results.

Assessment Location*	Assessment Number	Assessment Conduct Dates	Findings and Observations
241-A-702 and DSTs	FY2005-SPMA-S-0317	11/2004-12/2004	One finding and one observation <sup>1,2</sup> .
242-S and 242-T Evaporators			As of December 31, 2005, the assessment report was not finalized

\* Not all findings and observations from these assessments are directly related to mixed waste storage compliance. Only those directly related are listed below.

<sup>1</sup> Finding: Two items of double-shell tank equipment were identified as "awaiting disposal" approximately 120 days after the contaminated equipment inventory inspection was completed, thus exceeding the 90-day storage limit. During the evaluation of this finding it was determined that one piece of equipment was directly reusable [camera] and that one piece of equipment was reusable as a source of parts [removed SY annulus exhaustor]. The equipment was appropriately identified as reusable contaminated equipment.

<sup>2</sup> Observation: The contaminated equipment management practices procedure implementation can be strengthened by: (1) Retention of negative determination for equipment to show issue was addressed, (2) Procedure improvements to provide sufficient guidance or address sections that are difficult to follow, and (3) Use of terminology in program documents that is consistent with terminology used by DOE and Ecology. This observation was made during the implementation period for the contaminated equipment. Subsequent to the implementation period an assessment of the effectiveness of the implementation was conducted [March 2005]. The assessment concluded that the procedure had been effectively implemented. Some actions to address legacy items in single-shell tank farms were on-going and a follow-up assessment was planned to address continued effectiveness once legacy item actions were completed.

### 3.0 SUMMARY OF CHARACTERIZATION INFORMATION

As part of generation of any waste, a generating unit must take steps necessary to confirm the proper management of this waste. This includes identifying proper radioactive classification, understanding the physical matrix, properly designating the waste, and, where applicable, identifying the appropriate underlying hazardous constituents. Types of information that can be used to characterize waste can include data from analysis of the waste and knowledge of the materials and/or processes used to generate the waste.

This section discusses and summarizes the waste treatability groups and the planned characterization activities for the waste. Waste must be sufficiently characterized so the waste can be stored and managed properly. In addition, waste must be sufficiently characterized before treatment to ensure that the proper treatment processes are applied and that the resultant treated waste meets LDR standards. Table 3-1 summarizes the planned characterization activities for each of the treatability groups. One column of information from Table 3-1 is reproduced in Table 1-2.

Table 3-1. Summary of Characterization Information for Each Treatability Group.

Treatability Group Name	Additional characterization activities	Planned characterization schedule	Related Tri-Party Agreement milestone
221-T Containment Building	Completed.	Completed.	None.
221-T Tank System	Additional characterization might be required to support waste treatment.	Will be done in conjunction with T Plant Complex Canyon disposition.	None.
222-S Laboratory Complex	Characterization performed as generated.	Ongoing.	None.
222-S T8 Tunnel	As required to support cleanout of 222-S.	Will be done in conjunction with 222-S Laboratory building disposition.	None.
241-CX Tank System	Additional characterization will be performed, as necessary, to support 200-IS-1 Operable Unit remedial decisions.	To be determined through development of 200-IS-1 documentation.	Major Milestone M-015-00 and interim Milestone M-020-54.
324 Building REC Waste	No further characterization planned for transfer to ERDF.	Completed.	M-089-00, M-094-03.
325 HWTU	Characterization performed as generated.	Ongoing.	M-094-00.
B Plant Cell 4	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	None.
B Plant Containment Building	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	None.
Cesium and Strontium Capsules	None.	Completed.	M-092-05.
DST Waste	Additional information could be required, per TPA milestone.	Ongoing.	M-050, M-051, M-061, M-062, M-090.

Table 3-1. Summary of Characterization Information for Each Treatability Group.

Treatability Group Name	Additional characterization activities	Planned characterization schedule	Related Tri-Party Agreement milestone
ERDF – Treatment	Characterized as generated. Treatment and disposal are performed under CERCLA decision documents and treatment plans.	Ongoing.	None.
HSTF	Additional characterization will be performed, as necessary, to support removal of the tanks as part of 200-IS-1 Operable Unit activities.	To be determined through development of 200-IS-1 documentation.	Major Milestone M-015-00.
LERF/ETF Liquid Waste	Characterization performed as generated.	Ongoing.	None.
MLLW-01 – LDR Compliant Waste	Characterization performed as generated <sup>1</sup> .	Completed.	None
MLLW-02 – Inorganic Non-Debris	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-03 – Organic Non-Debris	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-12, M-091-12A, and M-091-42 <sup>2</sup> .	M-091-12, M-091-12A, and M-091-42 <sup>2</sup> .
MLLW-04A – O/C Hazardous Debris	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-04B – Non-O/C Hazardous Debris	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-05 – Radioactive Lead Solids	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-06 – Mercury Wastes	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-07 – RH and Large Container	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-15 and M-091-43 <sup>2</sup> .	M-091-15 and M-091-43 <sup>2</sup> .
MLLW-08 – Unique Waste	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-09 – Radioactive Batteries	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-10 – Reactive Metals	As necessary to meet treatment facility waste acceptance criteria <sup>1</sup> .	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
PUREX Plant	To be determined via Tri-Party Agreement Action Plan, Section 8.0	To be determined via Tri-Party Agreement Action Plan, Section 8.0	None.
PUREX Storage Tunnels	To be determined in conjunction with PUREX Plant based on RCRA Permit closure plan.	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	None.

Table 3-1. Summary of Characterization Information for Each Treatability Group.

Treatability Group Name	Additional characterization activities	Planned characterization schedule	Related Tri-Party Agreement milestone
Purgewater	Characterization performed as generated.	Ongoing.	None. Addressed in Appendix F of the Tri-Party Agreement (WHC-MR-0039).
SST Waste	Further information may be required, per TPA milestone.	Ongoing.	M-045, M-050, M-051, M-061, M-062, M-090.
TRUM-CH Standard Processing	As necessary to meet WIPP waste acceptance criteria.	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
TRUM-CH Special Processing	As necessary to meet WIPP waste acceptance criteria.	M-091-44 <sup>2</sup> .	M-091-44 <sup>2</sup> .
TRUM-RH	As necessary to meet WIPP waste acceptance criteria.	M-091-44 <sup>2</sup> .	M-091-44 <sup>2</sup> .

<sup>1</sup> Newly generated waste in these categories is fully characterized as generated. For waste in inventory before 1995, existing TSD record information will be reviewed and characterization corrections will be made as necessary based on existing acceptable knowledge.

<sup>2</sup> Characterization is anticipated to be performed as necessary to meet M-091 milestones.

CERCLA *Comprehensive Environmental Response, Compensation, and Liability Act*

RCRA *Resource Conservation and Recovery Act of 1976*

CH contact handled

RBC Radiochemical engineering cell

DST double-shell tank

RH remote handled

ERDF Environmental Restoration Disposal Facility

SST single-shell tank

HWTU Hazardous Waste Treatment Unit

TRUM transuranic mixed

LDR land disposal restrictions

TSD treatment, storage, and/or disposal

MLLW mixed low-level waste

WESF Waste Encapsulation and Storage Facility

O/C organic/carbonaceous

WIPP Waste Isolation Pilot Plant

PCB polychlorinated biphenyl

WRAP Waste Receiving and Processing Facility

PUREX plutonium-uranium extraction (facility or process)

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#### **4.0 SUMMARY OF TREATMENT INFORMATION**

This section summarizes the treatment information associated with the treatability groups and the volume of waste that will be treated as identified in Table 4-1. Certain information from Table 4-1 is reproduced in Table 1-2.



Table 4-1. Summary of Treatment Information for Each Treatability Group.

Treatability group name	Treatment process	Volume currently stored (m <sup>3</sup> ) <sup>1</sup>	Projected generation volume 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>	Projected volume to be treated 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>	Planned treatment period	Tri-Party Agreement milestone
221-T Containment Building	Not yet determined	58	0	0	2025	None
221-T Tank System	Not yet determined.	12	0	0	2025	None.
222-S Laboratory Complex	Commercial-Stabilization, Commercial-Thermal.	8.7	55	64	2035	None.
222-S T8 Tunnel	Not yet determined.	0.2	0	0	2033	None.
241-CX Tank System	Not yet determined.	3.0	0	0	To be determined through development of 200-IS-1 documentation.	M-015-00
324 Building REC Waste	As necessary, ERDF macroencapsulation	5.0	10	0	In accordance with schedules established under M-094 milestones	M-089-00, M-094-03.
325HWTU	HWTU, Commercial-Stabilization, Commercial-Thermal.	8.3	20	28	Through 2011	M-094-00
B Plant Cell 4	Not yet determined.	1.4	0	0	In accordance with Tri-Party Agreement Action Plan, Section 8.0.	None.
B Plant Containment Building	Not yet determined.	290,000 kilograms	0	0	In accordance with Tri-Party Agreement Action Plan, Section 8.0.	None.
Cesium and Strontium Capsules	Not yet determined.	2.0	0	0	Treatment options are still being assessed.	M-092-05.
DST Waste	WTP vitrification.	98,000	190	0	2011-2028.	M-050, M-051, M-061, M-062, and M-090.
ERDF - Treatment	ERDF treatment.	83	63,000	63,000	Through 2035.	None. Treatment and disposal are performed under a CERCLA decision document and treatment plans.
HSTF	Not yet determined.	2.1	0	0	To be determined through development of 200-IS-1 documentation.	M-015-00.
LERF/ETF Liquid Waste	ETF.	37,000	340,000	340,000	Through 2032.	M-026-07A, B, C.

Table 4-1. Summary of Treatment Information for Each Treatability Group.

Treatability group name	Treatment process	Volume currently stored (m <sup>3</sup> ) <sup>1</sup>	Projected generation volume 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>	Projected volume to be treated 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>	Planned treatment period	Tri-Party Agreement milestone
MLLW-01 – LDR-Compliant Waste	No treatment required.	210	150	No treatment required.	NA	None.
MLLW-02 – Inorganic Non-Debris	Commercial-Stabilization.	280	25	310 <sup>5</sup>	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-03 – Organic Non-Debris	Commercial-Thermal.	940	48	1,200 <sup>5</sup>	M-091-42 <sup>2</sup> .	M-091-12A, M-091-12, and M-091-42 <sup>2</sup> .
MLLW-04A – O/C Hazardous Debris	Commercial-Macroencapsulation	4,100	250	4,400 <sup>5</sup>	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-04B – Non-O/C Hazardous Debris	Commercial-Macroencapsulation	15	0.8	See MLLW-04A	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-05 – Radioactive Lead Solids	Commercial-Macroencapsulation	16	1.5	See MLLW-04A	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-06 – Mercury Wastes	Commercial-Amalgamation.	16	0.72	70 <sup>5</sup>	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-07 – RH and Large Container	M-091 MLLW.	2,900	0	740 <sup>5</sup>	M-091-15 and M-091-43 <sup>2</sup> .	M-091-15 and M-091-43 <sup>2</sup> .
MLLW-08 – Unique Waste	Not yet determined.	21	0	See MLLW-06	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-09 – Radioactive Batteries	Commercial-Macroencapsulation	13	0.72	See MLLW-06	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
MLLW-10 – Reactive Metals	Not yet determined.	26	0.004	See MLLW-06	M-091-42 <sup>2</sup> .	M-091-42 <sup>2</sup> .
PUREX Plant	Not yet determined.	1.0	0	0	In accordance with Tri-Party Agreement Action Plan, Section 8.0	None.
PUREX Storage Tunnels	Not yet determined.	2,800	0	0	Coordinated with PUREX Plant waste.	None.
Purgewater	Solar evaporation at PSTF and ETF treatment.	3,700	5,700	9,400	Ongoing.	None.
SST Waste	WTP <sup>4</sup> vitrification.	11,000	0	0 <sup>4</sup>	2011-2028.	M-050, M-051, M-061, M-062, and M-090.
TRUM-CH Standard Processing	WRAP Facility and/or T Plant Complex.	3,400	55	M-091 <sup>2</sup>	Before WIPP closure (~2034).	M-091-42 <sup>2</sup> .
TRUM-CH Special Processing	M-091 TRUM.	4,900	6.4	M-091 <sup>2</sup>	M-091-44 <sup>2</sup> .	M-091-44 <sup>2</sup> .
TRUM-RH	M-091 TRUM.	230	5.0	M-091 <sup>2</sup>	M-091-44 <sup>2</sup> .	M-091-44 <sup>2</sup> .

<sup>1</sup>Volume numbers in this table have been rounded to two significant figures.

Table 4-1. Summary of Treatment Information for Each Treatability Group.

Treatability group name	Treatment process	Volume currently stored (m <sup>3</sup> ) <sup>1</sup>	Projected generation volume 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>	Projected volume to be treated 2006 through 2010 (m <sup>3</sup> ) <sup>1</sup>	Planned treatment period	Tri-Party Agreement milestone
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<sup>2</sup>Treatment is anticipated to be performed as necessary to meet M-091 milestones.

<sup>3</sup>2035 is taken as the end of waste processing activities onsite.

<sup>4</sup>Some SSTs may classify as TRU, not high-level. If so, these would be expected to follow a different treatment path.

<sup>5</sup>Volumes reflect FY2006-FY009 numbers. MLLW-04A, MLLW-04B, and MLLW-05 numbers are grouped together. MLLW-06, MLLW-08, MLLW-09, and MLLW-10 as also grouped together.

CH contact handled  
DST double-shell tank  
ERDF Environmental Restoration Disposal Facility  
ETF 200 Area Effluent Treatment Facility  
HSTF Hexone Storage and Treatment Facility  
HWTU Hazardous Waste Treatment Unit  
LDR land disposal restriction  
LERF Liquid Effluent Treatment Facility  
MLLW mixed low-level waste  
O/C organic/carbonaceous

PCB polychlorinated biphenyls  
PSTF Purgewater Storage and Treatment Facility  
PUREX REC plutonium-uranium extraction (facility or process)  
RH radiochemical engineering cell  
SST remote handled  
TRUM single-shell tank  
WIPP transuranic mixed  
WRAP Waste Isolation Pilot Plant  
WTP Waste Receiving and Processing Facility  
Waste Treatment Plant

## 5.0 STORAGE VOLUME AND CONTAINER NUMBERS FOR SELECTED STORAGE LOCATIONS

This section contains information on the volume in storage and the numbers of containers in storage for a number of Hanford Site locations. These locations are identified in the Tri-Party Agreement milestone description for M-026-01P.

Table 5-1. Storage Volume and Number of Containers for Selected Hanford Locations.

Hanford Site location	Treatability group	Waste stream	Storage Volume (m <sup>3</sup> ) <sup>1</sup>	Number of containers
200 ETF	MLLW-01 – LDR Compliant Waste	RCRA Powder, LDR Compliant	15	71
	MLLW-02 - Inorganic Non-Debris	RCRA Powder, Inorganic Non-Debris Non-LDR Compliant	0.2	1
	MLLW-04A - O/C Hazardous Debris	Acid O/C Hazardous Debris	0.6	3
	MLLW-04A - O/C Hazardous Debris	RCRA O/C Hazardous Debris	7.3	8
222-S	222-S Laboratory Complex	Containerized mixed waste	8.7	145
	222-S T8 Tunnel	T8 Tunnel RH-MLLW	0.2	N/A - Pile
	DST Waste	Bulk Aqueous Liquids	15	N/A - Tanks
	TRUM-CH Standard Processing	TRUM-CH	1	0.21
324	324 Building REC Waste	Radiochemical Engineering Cells	5	N/A - Tanks
327	TRUM-CH Special Processing	Cation Exchange Column	0	0
325 HWTU	325 HWTU	325 HWTU	8.3	222
	MLLW-07 - RH and Large Container	MLLW-07 RH	0.008	3
	TRUM-CH Standard Processing	TRUM-CH	1.2	41
	TRUM - RH	TRUM-RH	0.84	4
CWC	MLLW-01 – LDR Compliant Waste	LDR compliant	190	428
	MLLW-02 - Inorganic Non-Debris	Inorganic Non-Debris Solids and Labpacks	270	1,259
	MLLW-03 - Organic Non-Debris	Organic Non-Debris Solids and Labpacks	780	3,318
	MLLW-04A - O/C Hazardous Debris	O/C Hazardous Debris	1,100	3,733
	MLLW-04B - Non-O/C Hazardous Debris	Non-O/C Inorganic Hazardous Debris	12	41
	MLLW-05 – Radioactive Lead Solids	Elemental Lead	12	58
	MLLW-06 - Mercury Wastes	Elemental Mercury	15	77
	MLLW-07 - RH and Large Container	MLLW-07	270	46
	MLLW-08 - Unique Waste	Unique Waste	1.1	5

Table 5-1. Storage Volume and Number of Containers for Selected Hanford Locations.

Hanford Site location	Treatability group	Waste stream	Storage Volume (m <sup>3</sup> ) <sup>1</sup>	Number of containers
	MLLW-09 – Radioactive Batteries	Pb & Cd Batteries	12	59
	MLLW-10 - Reactive Metals	Alkali Metals	26	62
	TRUM-CH Standard Processing	CH TRUM	540	2,547
	TRUM-CH Special Processing	TRUM Boxes	1,600	1,792
	TRUM - RH	RH TRUM	110	125
LLBG <sup>2</sup>	LERF/ETF Liquid Waste	TR34 and TR31 Leachate	0	N/A - Tanks
	MLLW-03 - Organic Non-Debris	MLLW Retrieval Organic Non-Debris	~150	~600
	MLLW-04A - O/C Hazardous Debris	MLLW Retrieval Debris	~2,900	~11,400
	MLLW-07 - RH and Large Container	MLLW-07	~2,600	~300
	TRUM-CH Standard Processing	TRUM Retrieval	~2,500	~11,700
	TRUM-CH Special Processing	TRUM Retrieval Boxes	~3,200	~400
	TRUM - RH	RH TRUM	~110	~200
PFP	MLLW-01 – LDR Compliant Waste	Lab Chemicals/Reagents, LDR Compliant	0	0
	MLLW-02 - Inorganic Non-Debris	Laboratory Chemical Wastes, Inorganic Non-Debris	0	0
	MLLW-03 - Organic Non-Debris	Lab Chemicals/Waste, Organic Non-Debris	0	0
	MLLW-04A - O/C Hazardous Debris	Operations and D&D Wastes O/C Hazardous Debris	0	0
	MLLW-05 – Radioactive Lead Solids	Elemental Lead	0	0
	MLLW-06 - Mercury Wastes	Hg, Elemental	0	0
	MLLW-09 – Radioactive Batteries	Batteries, Lead	0	0
	TRUM-CH Standard Processing	Lead Lined Containers	0	0
	TRUM-CH Standard Processing	Legacy Holdup Waste	0	0
	TRUM-CH Standard Processing	TRUM Debris	0	0
	ERDF—Treatment	CERCLA Mixed Waste	2.5	12
T Plant	221-T Containment Building	221-T Containment Building	58	N/A – Containment Building
	221-T Tank System	RCRA Tank System	12	N/A - Tanks
	LERF/ETF Liquid Waste	2706-T Tank System	0.73	N/A - Tanks
	MLLW-01 – LDR Compliant Waste	LDR Compliant	1.4	5
	MLLW-02 - Inorganic Non-Debris	Inorganic Non-Debris	0.5	2
	MLLW-03 - Organic Non-Debris	Organic Non-Debris	8.1	39
	MLLW-04A - O/C Hazardous Debris	O/C Hazardous Debris	24	19
	MLLW-04B - Non-O/C Hazardous Debris	Non-O/C Hazardous Debris	2.5	12

Table 5-1. Storage Volume and Number of Containers for Selected Hanford Locations.

Hanford Site location	Treatability group	Waste stream	Storage Volume (m <sup>3</sup> ) <sup>1</sup>	Number of containers
	MLLW-08 - Unique Waste	MW Requiring Special Processing	19	4
	MLLW-09 - Radioactive Batteries	Radioactive Batteries	0.2	1
	MLLW-10 - Reactive Metals	Alkali Metals	0.2	1
	TRUM-CH Standard Processing	TRUM-CH	44	210
	TRUM-CH Special Processing	TRUM Box	56	49
	TRUM-RH	TRUM-RH	18	12
WRAP	MLLW-01 - LDR Compliant Waste	LDR Compliant	0.86	5
	MLLW-02 - Inorganic Non-Debris	Inorganic Non-Debris	0.2	2
	MLLW-03 - Organic Non-Debris	Organic Non-Debris	0.7	4
	MLLW-04A - O/C Hazardous Debris	O/C Hazardous Debris	3.1	14
	MLLW-04B - Non-O/C Hazardous Debris	Non-O/C Inorganic Hazardous Debris	0.2	1
	MLLW-08 - Unique Waste	Unique Waste	0.2	1
	TRUM-CH Standard Processing	TRUM-CH	340	1,604
	TRUM-CH Special Processing	TRUM - Large Container	43	95
	TRUM-RH	TRUM-RH	1.5	7
WSCF	LERF/ETF Liquid Waste	LERF/ETF	0	0
	MLLW-02 - Inorganic Non-Debris	Inorganic Non-Debris	0	0
	MLLW-03 - Organic Non-Debris	Organic Non-Debris	0	0
	MLLW-04A - O/C Hazardous Debris	O/C Hazardous Debris	0	0

<sup>1</sup>=If zero is indicated, the reported mixed waste is forecasted to be generated or is being managed in a generator location (SAA or 90-day accumulation area). Values are rounded to 2-significant figures.

<sup>2</sup>= The storage volume for MLLW and TRUM treatability groups were estimated based on past retrieval activities and review of burial records. The number of containers was estimated based on a 50-50 split between MLLW and TRUM.

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CH contact handled

D&D decontamination & decommissioning

DST double-shell tank

ETF Effluent Treatment Facility

ERDF Environmental Restoration Disposal Facility

HWTU Hazardous Waste Treatment Unit

LDR land disposal restriction

LERF Liquid Effluent Retention Facility

LLBG Low-Level Burial Grounds

MLLW mixed low-level waste

O/C organic/carbonaceous

PFP Plutonium Finishing Plant

RCRA Resource Conservation and Recovery Act

REC Radiochemical Engineering Cell

RH remote handled

SAA satellite accumulation area

TR trench

TRUM transuranic mixed

WSCF Waste Sampling and Characterization Facility

WRAP Waste Receiving and Processing

## 6.0 REFERENCES

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- WHC-MR-0039, *Strategy for Handling and Disposing of Purgewater at the Hanford Site, Washington*, Westinghouse Hanford Company, Richland, Washington, available at ([http://www.rl.gov/docs/wa7890008967/att05/Attachment\\_05.PDF](http://www.rl.gov/docs/wa7890008967/att05/Attachment_05.PDF)).

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